

LEONIDOVA, A.I.; SOLOV'YEV, Ye.M.

A method for making artificial sandstone. Izv. vys. ucheb.
zav.; nef't' i gaz 5 no.3:37-41 '62. (MIRA 16:8)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promysh-
lennosti imeni akademika I.M. Gubkina.

LEONIDOVA, A.I.; SOLOV'YEV, Ye.M.

Relationship between the durability and permeability of cement stones.
Trudy MINKHIGP no.40:114-124 '63. (MIRA 16:4)
(Cement—Permeability)

SOLOV'YEV, Ye.M.; LEONIDOVA, A.I.

Revision of All-Union Standards for plugging cement; a topic for
discussion. Neft. khoz. 40 no.12:27-32 D '62. (MIRA 16:7)

(Oil well cementing)

LEONIDOVA, A.I.; SOLOV'YEV, Ye.M.

Effect of pressure and temperature on the filtration of cement slurries. Izv. vysh. ucheb. zav.; neft' i gaz 6 no.3:19-22 '63.
(MIRA 16:7)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika Gubkina.
(Oil well cementing)

LEONTOVA, A.I.; SOLOV'YEV, Ye.Ye.

Controlling the filter loss of cement slurries. Neft.khoz. 41
no.8:22-26 Ag. '63. (MIRA 17:10)

LEONIDOVA, A.I.; SOLOV'YEV, Ye.M.

Effect of filter cake on the water yield of cement slurries.
Izv.vys.ucheb.zav.; neft' i gaz 6 no. 12:29-32 '63.

(MIRA 17:5)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti
im. akademika I.M.Gubkina.

SOLOV'YEV, Ye.M.; LEONIDOVA, A.I.

Investigating the filtration properties of oil well cements.
Trudy MINKHIGP 46:84-93 '64. (MIRA 17:6)

LEONIDOVA, A.I.; SOLOV'YEV, Ye.M.

Effect of cement-slurry filter loss on the structure and properties of hardened cement. Izv. vys. ucheb. zav.; neft' i gaz 7 no.2:60 '64.

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akademika I.M. Gubkina.

SOLOV'YEV, Ye.M.; LEONIDOVA, A.I.; SHORYGINA, N.N.; IZUMRUDOVA, T.V.

Nitrolignin as a reducer of the viscosity and water loss of
cement slurry. Izv. vys. ucheb. zav.; neft' i gaz 8 no.3:25-28
'65. (MIRA 18:5)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti
im. akad. Gubkina i Institut organicheskoy khimii AN SSSR.

S/120/60/000/02/047/052

AUTHORS: Leonidova, G.G. and Polandov, I.N. ^{E140/E335}

TITLE: Measurement of High Pressures Using Tensometers

PERIODICAL: Pribery i tekhnika eksperimenta, 1960, No 2,
p 159 (USSR)

ABSTRACT: A bridge circuit is described in which all resistances are composed of identical tensometers. One is located in the same volume as the working tensometer for temperature compensation. There are 1 figure and 1 Soviet references.

ASSOCIATION: Institut fiziki vysokikh davleniy AN SSSR ^{✓C}
(Institute of High-pressure Physics of the Ac.Sc., USSR)

SUBMITTED: January 23, 1959

Card 1/1

24 7800,

S/181/62/004/009/036/045
B104/B186

AUTHORS: Leonidova, G. G., and Polandov, I. N.

TITLE: Transition of barium titanate into the paraelectric state at high pressure

PERIODICAL: Fizika tverdogo tela, v. 4, no. 9, 1962, 2613 - 2615

TEXT: The changes in the dielectric properties of monocrystalline barium titanate at high pressures and at room temperature were studied. The specimen (0.3·4.4 mm) had silver electrodes and was subjected to high pressures in a chamber in which the capacitance of the single crystal was measured at 800 cps. At the beginning of pressure rise, the capacitance remained constant. At 11,000 kg/cm² a sharp peak was observed. With a further increase in pressure the capacitance decreased to a small value. Above this transition the capacitance was independent of the voltage applied which is typical of a paraelectric state. The dielectric constant depends on pressure in the same way as the capacitance. The transition takes place at that pressure at which the Curie temperature of barium titanate had decreased to room temperature. There is 1 figure.

Card 1/2

Transition of barium titanate...

S/181/62/004/009/038/045
B104/B186

ASSOCIATION: Institut fiziki vysokikh davleniy AN SSSR, Moskva (Institute
of the Physics of High Pressure AS USSR, Moscow)

SUBMITTED: May 18, 1962

Card 2/2

L 13324-63

ENP(k)/ENT(1)/BDS AFFTC/ASD Pf-4 LJP(C)

ACCESSION NR: AP3002754

S/0120/63/000/003/0198/0198

AUTHOR: Leonidova, G. G.

59

TITLE: Crystal holder for high-pressure investigations

SOURCE: Pribery* 1 tekhnika eksperimenta, no. 3, 1963, 198

TOPIC TAGS: crystal holder, high-pressure investigation

ABSTRACT: A new cylindrical spring-type crystal holder is described; it is intended for operation inside of a high-pressure vessel. It was used with pressures up to 30,000 atm. A construction sketch is presented. "The author is thankful to V. K. Baranov and V. I. Gvozdev who have built the holder." Orig. art. has: 1 fig.

ASSOCIATION: Institute fiziki vy*sokikh davleniy AN SSSR (Institute of High-pressure Physics, AN SSSR)

SUBMITTED: 27Jun62

DATE ACQ: 12Jul63

ENCL: 00

SUB CODE: PH

NO REF SOV: 000

OTHER: 000

Card 1/1

LEONIDOVA, G.G.

Ferroelectric properties of thiourea at high pressures. Fiz. tver. tela
5 no.12:3430-3434 D '63. (MIRA 17:2)

1. Institut fiziki vysokikh davleniy AN SSSR, Moskva.

B/181/62/004/011/044/049
B108/B186

AUTHORS: Leonidova, G. G., Polandov, I. N., and Golentovskaya, I. P.

TITLE: Effect of hydrostatic head on the temperature of phase transition in triglycine sulfate

PERIODICAL: Fizika tverdogo tela, v. 4, no. 11, 1962, 3337-3340

TEXT: Triglycine sulfate $[(\text{NH}_2\text{CH}_2\text{COOH})_3 \cdot \text{H}_2\text{SO}_4]$ is a ferroelectric substance pertaining to the space group $P2_1$ which goes over into the space group $P2_1/m$ on transition into the paraelectric state. To check the linear rise of the Curie temperature with pressure, the authors subjected little single crystals to pressures of up to 5000 kg/cm^2 at temperatures between $+49$ and $+65^\circ\text{C}$ (constancy ± 0.02 degrees). The capacity of the crystals was measured as a function of pressure at constant temperature. The inversion points of the dielectric constant at different temperatures, determined from the capacities, were used to plot the curve of Curie temperature versus pressure. The curve is linear up to pressures of 3350 kg/cm^2 . Thereafter it tends to saturation. Up to 2500 kg/cm^2 the

Card 1/2

Effect of hydrostatic head J..a

§/181/62/004/011/044/049
B108/B186

present results agree with those of F. Jona and G. Shirane (Phys. Rev., 117, 1, 139, 1960). There are 2 figures.

ASSOCIATION: Institut fiziki vysokikh davleniy AN SSSR (Institute of High-pressure Physics AS USSR); Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov) ✓

SUBMITTED: July 13, 1962.

Card 2/2

L 6413-66 EWA(c) IJP(c) JD/HW/CG/WH

ACC NR: AP5027414

SOURCE CODE: UR/0181/65/007/011/3344/3347

AUTHOR: Leonidova, G. G.; Volk, T. R.

ORG: Institute of High Pressure Physics, AN SSSR, Moscow (Institut fiziki vysokikh davleniy AN SSSR)

TITLE: Investigation of phase transition in barium titanate at high hydrostatic pressure

SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3344-3347

TOPIC TAGS: barium titanate, piezoelectric crystal, ferroelectric crystal, second order phase transition

ABSTRACT: The dielectric characteristics of a BaTiO_3 single crystal are studied at pressures up to 8.5 kilobars in isothermal conditions to determine the nature of phase transition in this material as related to the variation in the constants A and B of the Devonshire equation. A reduction in the absolute value of B with pressure indicates that a second order transition may be observed in conformity with the Landau-Ginzburg theory at some critical hydrostatic pressure. We consider it our

Card 1/2

Card 2/2

APPROVED FOR

KOZLOV, Vyacheslav Nikolayevich; BLANK, A.F., retsenzent;
TURCHANOVSKAYA, L.F., retsenzent; LEONIDOVA, I.S.,
nauchnyy red.; DUKHOVNIY, F.N., red.; SHAPENKOVA, T.A.,
tekhn.red.

[Design of women's dressmaker clothing made of striped
fabrics] Modelirovanie zhenskogo legkogo plat'ia iz tkani
v polosku. Moskva, Izd-vo nauchno-tekhn.lit-ry RSFSR, 1961.
107 p. (MIRA 15:2)

(Dressmaking)

LEONIDOVA, K.O., LEVENSHTAM, M.A.

Interprovince conference of laboratory workers. Lab.delo. 4 no.5:55-56
S-0 '58 (MIRA 11:11)

(BACTERIOLOGICAL LABORATORIES)
(DIAGNOSIS)

LEONIDOVA, K. O., SEVAST'YANOVA, N. I. and GERASIMOVA, V. I.

"Materials on the Study of the State of Infection of Suctorial
Arthropods from Rodents in Nature with Infectious Agents Which
are Pathogenic for Man."

Tenth Conference on Parasitological Problems and Diseases with Natural
Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of
Sciences, USSR, Moscow-Leningrad, 1959.

Odessa Institute of Epidemiology and Microbiology

ANINA-RADCHENKO, N.D.; LEONIDOVA, K.O.

Results of serological diagnosis of chorioepithelioma. Akush.
i gin. 36 no.3:36-39 My-Je '60. (MIRA 13:12)
(CANCER)

ANIN. -RADCHENKO, N.D.; LEONIDOVA, K.O.

Data on the serological diagnosis of chori epithelioma. Vop.
onk. 8 no.11:3-8 '62. (MIRA 17:6)

1. Iz Odesskogo nauchno-issledovatel'skogo instituta epidemiologii
i mikrobiologii imeni I.I. Mechnikova, Adres. avtorov: Odessa, ul.
Pastera, 5, Institut epidemiologii i mikrobiologii.

ANINA-RADCHENKO, N.D., prof.; LEONIDOVA, K.O., kand.med.nauk; KOVBASYUK, R.F.,
kand.med.nauk; BALABAN, I.Ya., dotsent; BERNATSKAYA, B.P.

Specific antigens and antibodies in the blood serum of patients
with cancer of the lungs. Vrach. delo no.3:53-58 Mr '64.
(MIRA 17:4)

1. Odesskiy nauchno-issledovatel'skiy institut epidemiologii i
mikrobiologii imeni I.I.Mechnikova i Odesskiy oblastnoy onkolo-
gicheskiy dispanser.

LEONIDOVA, L. M.

USSR/Mathematics - Riemann Surfaces May/Jun 51

"Riemann Surface for the Green Function of a Multiconnected Region," L. M. Leonidova, Kursk

"Matemat Sbor" Vol XXVIII, No 3, pp 621-640

Investigates Riemann surface corr to complex Green function of multiconnected region. Consideration of problem of reflection of multiconnected on to a circle, similar to problem of the uniformizing variable, is of great significance in the theory of transformations. This article is divided into 2 parts: geom constr of this surface for the case of finite-connected region (in

186r60

USSR/Mathematics - Riemann Surfaces May/Jun 51
(Contd)

particular, 2 rings); soln of reverse problem of demonstrating that every Riemann surface constructed is Riemann surface for Green function of certain multiconnected region. Submitted 13 Mar 50.

186r60

LEONIDOVA, N.B., inzh.

Drying 400 kv. power transformers in their own tanks. Elek. eta.
29 no.8:61-63 Ag '58. (MIRA 11:11)
(Electric transformers)

LEONIDOVA, N.B., inzh.

Investigation of circuits for three-phase induction heating of
transformers. Trudy VNIIE no.8:123-134 '59. (MIRA 13:9)
(Electric transformers)

LEONIDOVA, N.B., inzh.

Experimental drying of TM-3200/20 transformers. Trudy VNIIE
no.8:135-149 '59. (MIRA 13:9)
(Electric transformers)

ZHDANOV, V.M.; RITOVA, V.V.; GEFEN, N.Ye.; ZHUKOVSKIY, A.M.;
BERLYANT, M.L.; YEVSTIGNEYEVA, N.A.; YEGOROVA, N.B.; KREYNIN,
L.S.; LEONIDOVA, S.L.; SERGEYEV, V.M.; SMIRNOV, M.S.

Comparative study of intranasal and aerosol methods of
vaccination against influenza. Zhur. mikrobiol., epid. i
immun. 33 no.11:63-67 N '62. (MIRA 17:1)

1. Iz Instituta virusologii imeni Ivanovskogo AMN SSSr.

LEONIDOVA, Ye.

Always on the alert. Pesh. dele 5 no.3:21 Mr '59.

(MIRA 12:5)

(Fire extinction)

LEONIN, L.

What is the weight of light. Nauka i zhyttia 13 no.7:52-55 J1
'63. (MIRA 16:10)

MALKOV, A.M.; ~~LEONINOK, V.A.~~

Effect of barbiturates on aerobic fermentation and formation of
pyrophosphoric compounds by yeast. Nauch.dokl.vys.shkoly; biol.
nauki no.2:146-148 '59. (MIRA 12:6)

1. Rekomendovana kafedroy tekhnologii brodil'nogo proizvodstva
Leningradskogo tekhnologicheskogo instituta pishchevoy promy-
shlennosti.

(Barbiturates--Physiological effect)
(Yeast) (Phosphorus metabolism)

MALKOV, A.M.; LEONINOK, V.A.

Effect of methylene blue and sodium azide on fermentation and the
pyrophosphate content of yeast. Mikrobiologiya 28 no.5:710-716
S-0 '59. (MIRA 13:2)

1. Leningradskiy tekhnologicheskii institut pishchevoy promyshlen-
nosti.

(PYROPHOSPHATES chem.)

(YEASTS chem.)

(AZIDES pharmacol.)

(METHYLENE BLUE pharmacol.)

MALKOV, A.M.; LEONINOK, V.A.

Effect of malonate on respiration and respiratory phosphorylation
in yeasts. Mikrobiologiya 29 no.6:834-838 N-D '60. (MIRA 14:1)

1. Leningradskiy tekhnologicheskii institut pishchevoy promyshlennosti.
(MALONIC ACID) (YEASTS) (RESPIRATION)
(PHOSPHORYLATION)

LEONKIEWICZ, K.

Fifteenth Congress of the Polish Microbiological Society
in Breslau. Przegl papier 20 no.2:59-60 F'64.

LYNCH, A. H.

"Aerodynamic Investigation of the Effect of Axial Tolerances and Overlapping on the Loss of Energy in a Turbine Stage." Cand Tech Sci, Belorussian Polytechnic Inst, Minsk, 1953. Dissertation (Referativnyy Zhurnal--Mekhanika Moscow, Feb 54)

SO: SUH 166, 19 Aug 1954

LEONKOV, A.M.

124-1957-2-1757

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 44 (USSR)

AUTHOR: Leonkov, A.M.

TITLE: Results of Investigations on a Flow Issuing From a Plane Cascade of Impeller Blades into a Submerged Space (Rezultaty issledovaniya potoka, vytekayushchego iz ploskoy reshetki napravlyayushchikh lopatok v zatoplennoye prostranstvo)

PERIODICAL: Tr. Bezhitsk. in-ta transp. mashinostr., 1955, Nr 15, pp 31-41

ABSTRACT: Results of experimental investigations on a flow issuing from a plane cascade of impeller blades into a submerged space at low velocities ($M = 0.2$). For simulation of axial clearances, the face walls of the channel terminate at the level of the trailing edges of the blades. A considerable increase in the range of the variations of the flow exit angles and of the energy losses at the terminal sections of the blades during free flow was established in comparison with the flow in the presence of face walls located at the outlet of the cascade. With the flow exiting from the cascade of the impeller blades into the submerged space, the flow boundary disturbances spread to certain parts of the blade height. The most extensive disturbances are noticed in the immediate area where the flow leaves

Card 1/2

124-1957-2-1757

Results of Investigations on a Flow Issuing From a Plane Cascade (cont.)

the cascade. The drop in the flow velocity resulting from the stalled flow in the turbine stage evokes a corresponding loss of circulation in the terminal sections of the blades. Also, the drop in velocity at the transverse boundaries of the flow could cause energy losses in the turbine stage runner by way of a considerable increase in the angles of attack. Along the boundary of the free flow, the average flow exit angle diminishes, attaining a zero value in certain sections at various levels of the flow. In these sections the main mass of the discharge flow moves parallel to the axis of the cascade.

A.I. Bunimovich

1. Fluid Flow--Analysis 2. Turbines--Performance

Card 2/2

LEONKOV, A.M., kandidat tekhnicheskikh nauk, dotsent.

Characteristics of fluid flow from an annular grid. Trudy Bezh.inst.
transp.mashinostr.no.15:42-45 '55. (MLRA 10:2)
(Turbines--Aerodynamics)

LEONKOV, A.M., kandidat tekhnicheskikh nauk, dotsent.

Some results of testing a rotating model of a turbine stage. Trudy
Bez.h.inst.transp.mashinostr.no.15:51-53 '55. (MLRA 10:2)
(Turbines--Testing)

124-1957-1-361

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 45 (USSR)

AUTHOR: Leonkov, A. M.

TITLE: To the Problem of the Effect of Axial Clearances and Overlaps on the Energy Losses in a Turbine Stage (K voprosu o vliyani oseykh zazorov i perekrysh na poteri energii v turbinnoy stupeni)

PERIODICAL: Sb. nauch. rabot Belorus. politekhn. in-ta, 1956, Nr 53, pp 88-107

ABSTRACT: The paper presents the results of an experimental investigation of the flow through the axial clearance of a turbine stage and the losses caused thereby as a function of the magnitude of the axial clearance and the overlap between the edges of the stator and rotor blades. The investigation was carried out on a fixed, plane cascade, which was especially equipped to simulate the flow conditions prevailing in the full-scale stage, as well as in a turbine-stage model. The tests indicated that, owing to the ejector action of the flow in the axial clearance, the energy losses along the blade tips are heavily augmented. The flow is disturbed not only in the immediate vicinity of the overlap, but also along a certain portion of the blade height. An increase in the magnitude of the

Card 1/2

124-1957-1-361

To the Problem of the Effect of Axial Clearances and Overlaps (cont.)

overlap leads to further erosion of the flow and greater losses. The cutting off of a portion of the flow resulting from a reduction of the overlap to zero does not produce any significant loss in power of the turbine, since it removes only the least valuable portion of the flow, which otherwise would strike the runner at a high angle of attack. Unfavorable flow conditions at the working blades and in the overlap area can have an appreciable deleterious effect on the turbine efficiency, especially with short blades. Any enlargement of the axial clearance leads to an expansion of the blade area along which the basic flow is eroded. The Author concludes that in turbine stages with small axial clearances it is advisable to dispense with any overlap and that relatively small overlaps should be employed only with large axial clearances. A reduction of the losses investigated here, it is recommended, can be attained through the application of pressure-retaining packings in the side of the working disk. Tests of a model turbine have confirmed the results obtained on the plane cascade.

V. Kh. Abiants

Card 2/2

1. Turbines--Effectiveness--Test methods 2. Turbines--Effective-
ness--Test results

LA GONLEV, M.N.

VARANKIN, Yu.V., kand.tekhn.nauk, glavnyy red.; LEONKOV, A.M., kand.tekhn.
nauk; ODEL'SKIY, E.Kh., prof., doktor tekhn.nauk; REPRINTSEVA, S.M.,
inzhenier; BARTMAN, B.I., tekhn.red.

[General power supply for cities; papers given at an engineering
conference] Kompleksnoe energosnabzhenie gorodov; materialy k
nauchno-tekhnicheskomu soveshchaniyu. Minsk, 1957. 213 p.

(MIRA 10:12)

1. Nauchno-tekhnicheskoye obshchestvo energeticheskoy promyshlennosti.
Belorusskoye respublikanskoye otdeleniye.

(Electric power distribution)

8(6)

SO7/112-59-3-4439

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 3, p 22 (USSR)

AUTHOR: Kuzovnikova, Ye. A., Leonkov, A. M., and Stepanchuk, V. F.

TITLE: Prospects for Power Generation in the BelSSR From Peat Sources
(Perspektivy razvitiya energetiki BSSR na baze torfyanykh mestorozhdeniy)

PERIODICAL: Sb. nauchn. rabot Belorussk. politekhn. in-t, 1957,
Nr 61, pp 140-153

ABSTRACT: Peat reserves in the BelSSR amount to 5 billion tons. 2.2 million hectares have been prospected and 5,945 peat bogs have been found, of which 1,508 can be commercially developed. These bogs occupy an area of over 100 hectares (93.3% of the reserves). Ash content of top beds is 2-4%, of lower beds 6-15%. Heat of combustion of the dug peat is 2,100-2,500 kilocal/kg. The annual yield of the peat is evaluated at 50 million tons for the next 50 years. Five groups of the largest peat massifs in the BelSSR which can serve as raw-energy sources for large-size power stations are: (1) the Vasilevichi group

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'8(6)

SOV/112-59-3-4439

Prospects for Power Generation in the BelSSR From Peat Sources

with an equivalent capacity of the massif of 400,000 kw; it is considered expedient to build one large power plant for Gomel', Bobruysk, Zhlobin, and other cities; (2) the Berezina group whose equivalent capacity is 700,000 kw; either one 700,000-kw or two 450,000-kw and 250,000-kw power plants are considered for Volkovyssk, Brest, and other cities; (3) the Sergiyevsk group with a total capacity of 275,000 kw; one power plant is being planned for using peat for both production of electric energy and gas and transmitting them to Minsk; (4) the David-Gorodok group; and (5) the Haroch' group with an equivalent capacity of 500,000 kw. One of the plans under consideration is to build 2 power houses of 250,000 kw each for Polotsk and Molodechno. The aggregate capacity of large electric power stations that could be built on the peat-energy sources in the BelSSR is about 2,600,000 kw.

A.B.M.

Card 2/2

KUTSKIY, A.I.; LEONKOV, A.M.; GEYLER, L.B.; SLEPYAN, Ya.Yu.; MOSEYEV, I.V.;
SOBOLEV, A.I.; TINYAKOV, N.A.; VOLKOV, N.P.; BOTVINNIK, Ya.Ye.;
BARABANOV, M.Ye.; BRAZGOVKA, V.A.; PEKELIS, G.B.; KUZOVNIKOVA,
Ye.A.; KUZ'MIN, Yu.P.; SHIMKO, N.I.; PALLADIY, N.L.; KHUTSKIY, G.I.

G.I. Dobkin; obituary. Izv. vys. ucheb. zav.; energ. no.4:128 Ap '58.
(Dobkin, Grigori Izrailevich, 1892-1958) (MIRA 11:6)

14(6)

AUTHOR:

SOV/143-59-5-10/19
Leonkov, A.M., Candidate of Technical Sciences, Docent

TITLE:

Phenomena in Axial Gaps of Turbine Stages

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy - Energetika,
1959, Nr 5, pp 89-97 (USSR)

ABSTRACT:

It is known that the efficiency of a turbine stage depends essentially on the magnitude of the axial gaps. The author considers some physical phenomena occurring in the axial gap between the nozzles and the working blade of a turbine stage under the condition of unlimited liquid suction. The experimental investigation was conducted on a plane grid with subsequent checking of the physical process on a rotating turbine stage model in the range of numbers $M = 0.51-0.20$. The author presents the investigation results in 9 graphs. Based on the experimental data, he concludes that the application of closed gaps will reduce the magnitude of energy losses, arising in the flow because of suction in the axial gap and especially in the area of overlapping. It was established experimentally.

AK

Si

Ca:

Card 1/2

LEONKOV, A.M., kand.tekhn.nauk, dotsent; STEPANCHUK, V.F., kand.tekhn.nauk, dotsent; KHUTSKIY, G.I., kand.tekhn.nauk, dotsent; SHAPOSHNIKOV, Ye.K., inzh.

From the experience in the modernization of steam turbines. Izv. vys. ucheb. zav.; energ. 4 no.11:120-122 N '61. (MIRA 14:12)

1. Belorusskiy politekhnicheskii institut.
(Steam turbines)

S/143/62/000/009/002/003
D238/D308

AUTHORS: Leonkov, A.M., Stepanchuk, V.F., Candidates
of Technical Sciences and Kravets, V.F.,
Engineer

TITLE: Some test results on a turbine stage with
partial admission of the working medium

PERIODICAL: Izvestiya vysshikh.uchebnykh zavedeniy.
Energetika, no. 9, 1962, 72 - 77

TEXT: In connection with the modernization of the
bladed section of small district-heating turbines, tests have been
carried out on an experimental air turbine with full and partial
admission to the turbine stage. Air was delivered from one or two
blowers in series, each of which provided a pressure of the order
of 800 mm H₂O at a rate of approximately 10,000m³/h. During the
tests measurements were carried out on the total pressure before
the nozzles at three points around the periphery, the air tempera-
ture before the nozzles, the speed of rotation of the turbine rotor,

Card 1/2

Some test results ...

S/143/62/000/009/002/003
D238/D308

the torque, and the air rate. The static pressure was measured in the gap between the nozzle and the working wheel at the root and periphery. The tests indicated that open axial gaps substantially affect the losses in the turbine stage with partial admission of the working medium. At the same time the change in the gap in the partial stage plays a much bigger part than in a stage with full admission. The degree of reaction falls with diminishing admission ratio. With carefully packed axial gaps this reduction occurs on account of the flow of working medium through inoperative channels. The data obtained provide an assessment of the design reaction of a stage with partial steam admission. The investigations provide the main characteristics of the pressure stage with full and partial admission of the working medium and with different axial gaps. The data is valid for the design of similar types of stage with partial admission. There are 5 figures and 1 table.

ASSOCIATION: Belorusskiy politekhnicheskii institut
(Belorussian Polytechnic Institute)

SUBMITTED: May 4; 1962

Card 2/2

LEONKOV, A.M., kand.tekhn.nauk, dotsent; KHUTSKIY, G.I., kand.tekhn.nauk,
dotsent

Development of new methods in the theory of automatic control of
turbomachines. Izv.vys.ucheb.zav.; energ. 5 no.5:128-129 My '62.
(MIRA 15:5)

1. Belorusskiy politekhnicheskiy institut.
(Automatic control) (Turbomachines)

VOLKOV, N.P., kand.tekhn.nauk, dotsent; LEONKOV, A.M., kand.tekhn.
nauk, dotsent; KHUTSKIY, G.I., kand.tekhn.nauk, dotsent

Increase in the operational efficiency of PT-25-90 and T-25-
90 turbines. Izv.vys.ucheb. zav.; energ. 5 no. 8:63-70
Ag '62. (MIRA 17:7)

1. Belorusskiy politekhnicheskii institut. Predstavlena
kafedroy teploenergeticheskikh ustanovok elektricheskikh
stantsiy.

LEONKOV, A.M., kand.tekhn.nauk, dotsent; STAPANCHUK, V.F., kand.tekhn.nauk,
dotsent; KRAVETS, V.F., inzh.

Some results in testing of a turbine stage with partial supply of working media. Izv. vys. ucheb. zav.; energ. 5 no.9:72-77 S '62. (MIRA 15:10)

1. Belorusskiy politekhnicheskiy instiut. Predstavlena kafedroy teploenergeticheskikh ustanovok elektricheskikh stantsiy.
(Turbines)

VOLKOV, Nikolay Petrovich; LEONKOV, Aleksandr Mitrofanovich;
SLIZHEVSKIY, M., red.; TURIN, N., red.; NOVIKOVA, V.,
tekhn. red.

[Modernization of steam-turbine power plants] Moderniza-
tsia paroturbinnnykh elektrostantsii. Minsk, Gosizdat
BSSR, 1963. 126 p. (MIRA 17:1)
(Electric power plants) (Steam turbines)

LEONKOV, A.M., kand.tekhn.nauk, dotsent; KHUTSKIY, G.I., kand.tekhn.nauk, dotsent

Automation of the start of a boiler-turbine block. Izv. vys.
ucheb. zav.; energ. 6 no. 4:70-76 Ap '63. (MIRA 16:5)

1. Belorusskiy politekhnicheskiy institut. Predstavlena kafedroy
teploenergeticheskikh ustanovok.
(Boilers) (Steam turbines) (Automatic control)

LEONKOV, A.M., kand.tekhn.nauk, dotsent; PEKELIS, G.B., kand.tekhn.nauk,
dotsent; MINKOV, V.A., inzh.

Coverage of the peak loads of power systems. Izv. vys. ucheb. zav.;
energ. 7 no.3:119-121 Mr '64. (MIRA 17:4)

1. Belorusskiy politekhnicheskii institut i Institut ekonomiki
AN BSSR.

LEONKOV, A.M., kand. tekhn. nauk, dotsent; STEPANCHUK, V.F., kand.
tekhn. nauk, dotsent; PALLADY, N.I., inzh.

Investigation of the aerodynamic characteristics of a complex
burner device. Izv. vys. ucheb. zav.; energ. '7 no.11:47-53
N '64 (MIRA 18:1)

1. Belorusskiy politekhnicheskii institut. Predstavlena ka-
fedroy teploenergicheskikh ustanovok.

YERMAKOV, V.S., kand. tekhn. nauk, glav. red.; LEONKOV, A.M.,
red.; MINKOV, V.A., red.; PEKELIS, G.B., kand. tekhn.
nauk; RESHETNIKOV, D.V., red.

[Coverage of fluctuating electrical loads in electric
power systems.] Problemy pokrytiya peremennykh elektro-
nagruzok v energosistemakh. Minsk, Nauka i tekhnika,
1965. 144 p. (MIRA 18:10)

1. Nauchno-tekhnicheskaya konferentsiya po problemam
pokrytiya pikovykh nagruzok ob'yedinennoy energosistemy
Severo-Zapada. Minsk, 1961.

L 3628-66 EWT(1)/EWP(m)/EWT(m)/EWP(w)/EWP(f)/EWA(d)/EWP(v)/T-2/EWP(k)/FCS(k)/ETC(m)/
 ACCESSION NR: AP5025138 EWA(1) WH/EM UR/C143/65/000/009/0032/0037
 621.165:532.507

AUTHOR: Leonkov, A. M. (Candidate of technical sciences, Docent) ⁵⁶₅₃ B
 TITLE: Investigation of the turbulent structure of a flow in a turbine
 stage

SOURCE: IVUZ. Energetika, ⁸no. 9, 1965, 32-37

TOPIC TAGS: turbine, turbine stage, turbulent flow, electrical power
 station ²¹⁴⁴⁵⁵

ABSTRACT: The structure of a turbulent flow considerably affects the basic processes taking place in turbomachines, e.g., combustion, heat transfer, and hydraulic resistance. The turbulent flow structure in a turbine stage was investigated experimentally at the Department of Heat Power Equipment for Electrical Stations, Belorussian Polytechnical Institute. The experiments were conducted using an air turbine. The obtained results indicate that the character of the flow over the blade profiles and the resulting losses are determined mainly by the initial turbulence of the flow. An increased initial turbulence im-

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L 3628-66

ACCESSION NR: AP5025138

3
proves the flow over a blade cascade under separation conditions. Oscillograms taken along the height of the cross sections of the nozzles and rotor blades indicate a marked change in the frequency and character of turbulence in the passage of the flow through the rotor blades. Orig. art. has: 4 figures, 1 table, and 3 formulas.

[AC]

ASSOCIATION: Belorusskiy politekhnicheskiy institut (Belorussian Poly-technical Institute)

SUBMITTED: 01Feb65

ENCL: 00

SUB CODE: PR, ME

NO REF SOV: 006

OTHER: 001

ATD PRESS: 4/16


Card 2/2

SOV/107-58-2-2/32

AUTHOR: Lecnov, A., Colonel-General (Signal Corps)

TITLE: Radio Communication in the Soviet Army (Radiosvyaz' v Sovetskoy armii)

PERIODICAL: Radio, 1958, Nr 2, p 3-5 (USSR)

ABSTRACT: The development of the Signal Corps of the USSR Armed Forces is reviewed on the occasion of the 40th anniversary of the Soviet Army. The experience obtained during World War II is emphasized. The application of uhf in the range of 20-60 megacycles (5-15m) in recent years is briefly discussed. At the end of the article the importance of the DOSAAF organization is stressed especially for training highly qualified radio operators. There are two photos.

1. Military communications---USSR 2. Radio 3. Military personnel---Training

Card 1/1

LEONOV, A., marshal voysk svyazai

Utilize the possibilities of radio more fully. Voen.vest. 42
no.5:98-100 My '62. (MIRA 15:11)
(Radio, Military)

LEONOV, A., marshal voysk svyazi

The military radioman must have an amateur classification. Voen.
vest. 42 no.8:102-104 Ag '62. (MIRA 15:7)
(Radio, Military)

LEONOV, A., marshal voysk svyazi

Radio-electronics is the best means of control. Voen. vest.
42 no.5:16-17 My '63. (MIRA 16:5)
(Radio, Military)

NIKOLAYEV, A., podpolkovnik, Geroy Sovetskogo Soyuza, voyennyy letchik
ispytatel' pervogo klassa; LEONOV, A., inzh.-podpolkovnik;
POGULAYEV, V., inzh.-podpolkovnik

Nose spin with a training jet plane. Av. i kosm. 47 no.9:
21-24 S '64 (MIRA 17:8)

26105-56 EEC(k)-2/EWT(1)/EWA(d)/FSS-2 SCOT TI/DD/RD/GW

ACC NR: AP6014998

SOURCE CODE: UR/0209/66/000/005/0027/0031

AUTHOR: Leonov, A. (Delegate 23rd Congress of Communist Party;
Lieutenant colonel; Pilot Cosmonaut SSSR; Hero of Soviet Union) 44

ORG: none B

TITLE: Steps in the universe [From the Voskhod-2 flight log]

SOURCE: 2 Aviatsiya i kosmonavtika, no. 5, 1966, 27-31

TOPIC TAGS: manned spaceflight, flight log, extravehicular activity,
weightlessness, ventilation system/Voskhod-2

ABSTRACT: Part of the Voskhod-2 flight log is presented, and Leonov's extravehicular activity is described in some detail by the cosmonaut himself. Six partially legible pages of the log are reproduced. Parts of pages 64 and 65, a description of the EVA, are translated below. The first part of each entry (before the dash) was printed by hand, apparently before the flight, and constitutes a program to be followed. The second part of each entry, presumably in Leonov's handwriting, is a description of each task shortly after its performance. It should be noted that much of the log, written in weightless conditions, is indecipherable. 2

Card 1/3

I 26105-66

ACC NR: AP6014998

Pages 64-65 of the Voskhod-2 Flight Log

Line number p. 64 Translation (complete as far as possible, with explanatory notes)

1	Position after exit from the lock
3	first push-away—went 3 m without twisting [of
4	umbilicus around the cosmonaut]
5	exertion during pushing away—negligible
6	sensation of jerk from the umbilicus—none
	influence of the umbilicus on change of position
	outside the lock—not apparent, did not influence—
	exerted some influence at the end [of maneuver]
7	photography (F-21)—didn't photograph, didn't find
	the bulb [operating the shutter]
10	entry into the lock (coiling of umbilicus)—the um-
11	bilicus was easily gathered up [rest indecipherable]
13	closing of lock—rapidly, perfectly
	removal of backpack [autonomous life-support sys-
	tem]—easy

Card 2/3

I. 26:05-66

ACC NR: AP6014998

Line number p. 65

7 density of light filter—normal, everything visible
9 work with light filter—difficult, but possible
10 was it hot? adequacy of ventilation
11 [in the cabin]—adequate, even cold
12 in the lock—up to normal levels
13 outside the lock—normal, didn't even sweat
14 during reentry into the lock—warm from the
exertion

Orig. art. has: 7 figures.

[JS]

SUB CODE: 06/ SUBM DATE: none/ ATD PRESS: 4252

Card 3/3

LEYONOV, A. A.

PA 18T9

USSR/Efficiency, Industrial
Engineers, Chemical

Aug 1947

"Council of Power Engineers of Enterprises of
the Ministry of the Chemical Industry," A. A.
Leyonov, 1 p

"Za Ekonomiyu Topliva" No 8

This council convened in Moscow from 27 May to
2 Jun 1947. Mel'nik suggested plans for exceed-
ing the Government plans for 1947. Ryzhnev de-
plored the poor showing of the chemical industry
for the year 1946 as compared to 1945. M. G.
Pervukhin discussed the need of raising the level
of technical exploitation of electric equipment.
18T9

AID P - 2591

LEONOV, A. A.

Subject : USSR/Hydraulic Engineering

Card 1/1 Pub. 35 - 14/20

Author : Leonov, A. A., Eng.

Title : ~~One-column wadding~~ installation of the OT-2 type

Periodical : Gidr stroi, 4, 39-40, Ap 1955

Abstract : The article reports in detail on a drilling installation equipped with a hermetical wad to seal holes and used for drilling shafts in submerged rock foundations. The one-column device is considered more efficient than the two-or three-column devices used heretofore. One diagram.

Institution : None

Submitted : No date

AUTHOR: LEONOV, A.A. 98-58-5-8/ 33
Leonov, A.A., Engineer

TITLE: Installation of Drainage Ducts in Concrete Dams
(Ustroystvo drenazhnykh skvazhin v tele betonnykh plotin)

PERIODICAL: Gidrotekhnicheskoye Stroitel'stvo, 1958, Nr 5, pp 34-36 (USSR)

ABSTRACT: The installation of pipes for drainage in the body of massive dams is very important because drainage decreases the pressure of filtration water, protects the concrete from chemical changes, increases the durability of the construction, etc. Until now the drainage ducts were made from concrete pipes. This method is highly expensive as to labor and costs, besides having serious technical deficiencies, e.g. the pipes very often get plugged with cement grout, thereby cutting-off the drainage. In 1956, a method was recommended by which steel tubes (150 - 200 mm in diameter and with a 3.5 - 5 mm wall thickness) were used. Before the pouring of concrete, the steel tubes are installed and their surface is covered with thick spent oil or lubrication grease. One or two weeks after pouring the concrete, the steel tubes are drawn out and thus the drainage holes are formed within the body of the concrete dam. The method described saves labor and material,

Card 1/2

98-58-5-8/33

Installation of Drainage Ducts in Concrete Dams

improves the drainage and ensures clean unchoked drainage
holes.

There is 1 schematic drawing.

AVAILABLE: Library of Congress

Card 2/2

LEONOV, A.

POŁON

Two-stage method of prothrombin determination. A. Leonov. *Pracelad Lekarski*, 6, 705-71 (1950); *Biol. Abs.*, 28, 2761 (1952).—The results of a 2-stage method of prothrombin determination are compared with those obtained with the 1-stage method on diked and undiked plasma. In cases of thrombocytopenia a rise of the prothrombin level was found with significant regularity. In several cases of hemophilia the time of prothrombin conversion was prolonged. Insulin therapy causes a fall of the prothrombin level and a prolongation of the time of prothrombin conversion in cases of Meigs' disease. A. M. M.

LEONOV, A.F.; MOROZOV, A.N.; IVANOV, R.M.; VARNAVSKIY, I.N.;
TAKHTAYEV, Yu.B.; IZOTOV, N.P.; VOLKOV, S.S.

Smelting of native-alloy steel. Metallurg 6 no.10:20-21
O '61. (MIRA 14:9)

1. Orsko-Khalilovskiy metallurgicheskiy kombinat i
Chelyabinskiy nauchno-issledovatel'skiy institut metallurgi.
(Steel alloys--Metallurgy)

LEONOV, A.A.; SADOV, I.Ya., redaktor; VERINA, G.P., tekhnicheskii
redaktor

[Electromechanic's handbook of automatic locomotive signaling and
automatic train stops] Rukovodstvo elektromekhaniku avtomaticheskoi
lokomotivnoi signalizatsii i avtostopov. Moskva, Gos. transp. shel-
dor. izd-vo, 1952. 275 p. [Microfilm] (MLRA 9:7)
(Railroads--Signaling)

LEONOV, Arkadiy Aleksandrovich; SADOV, I.Ya., inzhener, redaktor;
~~RANDYKH, A.Ye, tekhnicheskii redaktor.~~

[Maintenance of automatic locomotive signal system and automatic
train stops] Obsluzhivanie avtomaticheskoi likomotivnoi signa-
lizatsii i avtostopov. Moskva, Gos.transp.zhel-dor. izd-vo 1955.
106 p. (MLRA 8:11)
(Railroads--Signaling)

A.
LEONOV, A., inzh.

Point-type automatic locomotive signaling with automatic
stop. Zhel.dor.transp. 36 no.3:66-69 Mr '55. (MIRA 12:5)
(Railroads--Signaling)
(Railroads--Automatic train control)

LEONOV, Arkadiy Aleksandrovich, inzhener; KUT'IN, I.M., kandidat
tekhnicheskikh nauk, redaktor; BOEROVA, Ye.N., tekhnicheskii
redaktor.

[Electromechanic's handbook of automatic signaling and automatic
train stops] Rukovodstvo elektromekhaniki avtomaticheskoy loko-
motivnoi signalizatsii i avtostopov. Izd. 2-oe, perer. i dop.
Moskva, Gos.transp. zhel-dor.izd-vo, 1957. 317 p. (MLRA 10:6)
(Railroads--Signaling)

~~LEKNOV~~ inzhener.

Magnetic amplifiers. Avtom. telemekh. i aviaz' no. 8:5-9 4g '57.
(Magnetic amplifiers) (HLRA 10:8)

LEONOV, A. A.

LEONOV, A.A., inzh.

Automatic locomotive signaling for safer train movement. Avtom.,
telem. i sviaz' no.11:14-16 N '57. (MLRA 10:11)
(Railroads--Signaling)

LEONOV, A.A., inzh.

Effect of electric-traction devices on track circuits. Avtom. telem.
i svyaz' 2 no.12:3-7 D '58. (MIRA 11:12)
(Electric railroads)

Leonov, A.A.

12(3); 28(1)

PHASE I BOOK EXPLOITATION

SOV/2776

Novoye v zheleznodorozhnoy avtomatike, telemekhanike i svyazi; sbornik statey (New Developments in Railroad Automation, Remote Control, and Communications; Collection of Articles) Moscow, Transzheldorizdat, 1959. 198 p. 3,000 copies printed.

Eds. (Title page): B.S. Ryazantsev, Candidate of Technical Sciences, and A.M. Pogodin, Engineer; Ed. (Inside book): G.I. Marenkova, Engineer; Tech. Ed.: G.P. Verina.

PURPOSE: This collection of articles is intended for engineers and technicians specializing in railroad automatic and remote control and communications.

COVERAGE: The articles in this book concern the following problems: the application of automatic control in the electric power supply of automatic block-signalling systems; the construction of electric interlocking systems in switching yards of railroad stations; modernization of route control systems; equipping of runs with a relay-electromechanical system of semiautomatic block signals; protection of track circuits of coded automatic block-signalling systems and telephone networks of overhead communication lines

Card 1/6

New Developments (Cont.)

SOV/2776

against traction currents in the electrified sections of railroads. A radar device for measuring the speed of railroad cars on slopes and a signalling system for subways are described. Some data are also given from non-Soviet periodicals on automatic and remote control systems and communications and on railroads in the United States. There are no references.

TABLE OF CONTENTS:

Chernyshev, V.B., Engineer. Automatic and Remote Control of Electric Power Supply of Automatic Block-signalling Systems

3

The author describes a number of measures employed in Soviet railroads since 1957 for the improvement of the electric power supply to the automatic block-signalling systems, particularly in a-c sections. The author enumerates the various kinds of faults occurring in high-voltage lines and the methods used to clear them. He describes systems of automatic control of power supply to the block-signalling systems and illustrates them with detailed diagrams and drawings.

Leonov, A.A. Protection of Track Circuits of Coded Automatic Block-signalling Systems Against the Disturbing Effects of Traction Current Harmonics in Electrified Sections of Railroads
Card 2/6

22

New Developments (Cont.)

SOV/2776

The author describes measures for removal of complications occurring in automatic block-signalling systems from the simultaneous use of rails for track circuits and current feedback into the power system. In 1957 the TsNII MPS (Central Scientific Research Institute of the Ministry of Transport) conducted a series of measurements of harmonic currents and voltages in traction substations and rails, and of insulation resistance with respect to ground of metallic structures supporting the contact wire. These tests were made in the Kurgan-Makushino section of the South Ural Railroad. The author presents the results of these tests and suggestions for the prevention and removal of effects of harmonics in the primary a-c supply current on the signalling systems.

Matskevich, A.G. Engineer, and L.G. Delyanov. Electric Interlocking Control in Switching Yards

41

The author describes the methods used in train formation at Soviet railroad stations and finds that in many cases switching operations are still manual. He gives a description of an electrically operated automatic-interlocking system.

Stepanov, N.M., Engineer. Relay-Electromechanical System of Semiautomatic Block Signalling
Card 3/6

59

New Developments (Cont.)

SOV/2776

The author describes a system of semiautomatic block signals called "relay-electromechanical" which was developed in 1956-1957 at the Giprotranssignalsvyaz' and which was found to work satisfactorily on a few runs.

Kovbasenko, V.S., Engineer. Route Lever System in Route Control Systems

78

The author is of the opinion that the route-control system of Engineers Natalevich and Grigorov, widely used in the USSR, applies only to small railroad stations. For large railroad stations and sidings a route lever system was developed which can handle both incoming and outgoing trains from all routes and in all directions. Operation of this system for over five years gave satisfactory results. A description of the system is given.

Trekhdenov, V.I., and Ye.N. Kiselev, Engineers. Route Control Systems of the Blocking Type

89

The Design Office of the Main Administration of Signalling and Communications of the Ministry of Transport in 1957 developed a new system of route control. This system consists of standard switch-locking arrangements (with route and signal control locks) and control tower equipment. The authors describe the system in detail.

Card 46

New Developments (Cont.)

SOV/2776

Solntsev, A.M., Engineer. Signalling System on Subway Lines 102
The author describes the two-aspect signalling system used in the Moscow and Leningrad subways.

Khanin, A.I., Engineer. Radar Device for Measuring Speed 115
In 1955 the Giprotranssignalsvyaz' started the development of a system of automatic speed regulation of railroad cars in hump yards. In 1957 experimental models of an electronic speedometer of the EIS-3 type and of a radar meter of the RIS-1 type were developed and tested under operating conditions. The author describes these devices, which were built on the Doppler-effect principle.

Fel'dman, A.B., Engineer. New Data on the Effect of the Contact Wire Network of D-c Electric Railroads on Telephone Circuits of Overhead Communication Lines 130
At the TsNII MPS studies of the causes of the disturbing effects of d-c contact wire networks on long-distance service channels are being conducted, and methods for the suppression of these disturbances are planned. The author describes the initial results of this investigation.

Card 5/6

New Developments (Cont.)

SOV/2776

Kut'yin, I.M., Candidate of Technical Sciences. Development of Automatic and Remote Control on Railroads in the USA

147

This is a descriptive article of achievements in the US in the above field during the last 3 to 5 years.

Pogodin, A.M., Engineer. Communications on Railroads in the USA

173

This is a descriptive article on the various types of communications systems on railroads in the USA.

AVAILABLE: Library of Congress

Card 6/6

JP/jb
1-18-60

LEONOV, A.A., inzh.

Increase protection for electric lines of automatic block systems
which use long-distance signal lights. Avtom. telem. i svyaz'.
4 no.5:4-7 My '60. (MIRA 13:8)
(Railroads--Signaling--Block system)

KOTLYARENKO, Nikolay Fedorovich; VOLKOV, V.F., inzh., starshiy prepodavatel',
retsenzent; LEONOV, A.A., inzh., retsenzent; SHISHLYAKOV, A.V., kand.
tekhn. nauk, retsenzent; PENKIN, N.F., kand. tekhn. nauk, nauchnyy
red.; BOBROVA, Ye.N., tekhn. red.

[Electric rail circuits] Elektricheskie rel'sovye tsepi. Mo-
skva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshche-
niia, 1961. 326 p. (MIRA 14:8)
(Railroads--Signaling)

VLODAVSKIY, Moisey Il'ich [deceased]; LEONOV, A.A., inzh., retsenzent;
Printvali uchastiye: SVERDLICHENKO, D.Ya., dots.; KOROLEV, A.I.,
assistent; BOBROVA, Ye.N., tekhn. red.

[Automatic locomotive signaling and automatic stop] Avtomaticheskaya
lokomotivnaya signalizatsiya i avtostopy. 2. perer. i dop. Izd. Mo-
skva, Vses.izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniya,
1961. 171 p. (MIRA 14:12)
(Railroads--Automatic train control)

TSETSTURA, Ivan Antonovich; RYAZANTSEV, B.S., kand. tekhn. nauk,
retsenzent; LEONOV, A.A., inzh., red.; MEDVEDEVA, M.A.,
tekhn. red.

[Experience in the reorganization of central block signaling
systems in connection with the transfer to a.c. traction]
Opyt rekonstruktsii ustroystv STsB pri perekhode na elektri-
cheskuiu tiagu peremennogo toka. Moskva, Vses. izdatel'sko-
poligr. ob"edinenie M-va putei soobshcheniia, 1961. 93 p.
(MIRA 15:3)

(Railroads--Electrification)
(Electric railroads--Signaling--Block system)

KATSALAPENKO, V.I., inzh., retsenzent; LEONOV, A.A., inzh., retsenzent;
MIRSKIY, A.G., inzh., retsenzent; POGODIN, A.M., inzh.,
retsenzent; SEARSKIY, A.A., kand. tekhn.nauk, retsenzent;
FRUMSON, A.N., inzh., retsenzent; SHMYREV, A.G., inzh.,
retsenzent; YURTSEV, I.I., inzh., retsenzent; BUNINA, D.A., inzh.,
red.; MEDVEDEVA, M.A., tekhn. red.

[Automatic control, remote control, and communications on a.c.
railroads] Avtomatika, telemekhanika i svyaz' na zheleznnykh
dorogakh s elektrotiagoi peremennogo toka; sbornik statei. Pod
obshchei red. D.A.Bunina. Moskva, Vses. izdatel'sko-poligr.
ob"edinenie M-va putei soobshcheniia, 1961. 201 p.

(MIRA 15:2)

(Electric railroads--Electronic equipment)
(Automatic control) (Remote control)

KOTLYARENKO, N.V., kand. tekhn. nauk; MANOSHIN, N.K., inzh.;
TSETURA, I.A., inzh.; LEONOV, A.A., inzh., retsenzent;
GLUZMAN, I.S., kand. tekhn. nauk; VOROTNIKOVA,
L.F., tekhn. red.

[Track circuits] Rel'sovye tsepi. Moskva, Transzheldorizdat,
1963. 142 p. (MIRA 16:10)
(Railroads--Signaling)(Railroads--Electric equipment)

LEONOV, A.A., inzh.

New developments in signaling regulations on railroads in the
U.S.S.R. Avtom., telem. i sviaz' 8 no.4:1-5 Ap '64. (MIRA 18:2)

LEONOV, A.A., inzh.; RUDNEV, A.A., inzh.

New signaling instructions on the railroads of the U.S.S.R.
Zhel. dor. transp. 46 no.4:63-66 Ap '64. (MIRA 17:6)

LEONOV, A.A., letchik-kosmonavt SSSF

Those 20 minutes were the essence of the flight. Av. 1 kosm. 47
no.5:82-83 My '65. (MIRA 18:4)

L 39737-66 EWT(1)/EEG(k)-2/ESS-2/EWA(d) SCTB TT/DD/BD/CI/CD-2
ACC NR: AN6006284 SOURCE CODE: UR/9034/66/000/011/0002/0003

AUTHOR: Leonov, A. A. (Cosmonaut pilot; Hero of the Soviet Union); Lebedev, V. I.
(Candidate of medical sciences)

ORG: none

TITLE: Penetration into space and human spatial perception beyond the earth

SOURCE: Meditsinskaya gazeta, no. 11, 1966, 2-3

TOPIC TAGS: human physiology, weightlessness, space psychology, disorientation,
visual analyzer, Voskhod-2

ABSTRACT: Disruption of analyzer systems is responsible for spatial illusions during space flight. In weightless conditions the role of the visual analyzer becomes considerably more important. Other receptors, it is pointed out, were formed solely by terrestrial forces, while the eyes depend on light from the sun. The importance of the visual analyzer is further increased when the cosmonaut is in free space with only the slight support of an umbilicus. In free space, tactile and muscular sensations drop off. Nerve impulses from muscle and skin receptors give the cosmonaut no information about his position in space; they only inform him of the relationship of his body parts (including the suit and umbilicus). With the destruction of the cosmonaut's psychological concept of his position in space, which had been based on tactile, proprioceptive, and visual sensations, a change to an orientation based

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L 39737-66

ACC NR: AN6006284

solely on visual impressions occurs. The function of the visual analyzer must now extend to correction of information coming into the brain from other sense organs. The new functional analyzer system developed in space flight is less stable than the natural system, but with special training it can prevent disorientation in space flight. Leonov's successful adaptation to free space was the result of this sort of training. Before the Voskhod-2 flight he thoroughly learned a system of coordinates in which the capsule is always "down." Due to emotional conditioning during parachute jumps, parabolic flights, etc., Leonov was able to overcome the significant psychological barrier of fear of entering free space. By his own account and according to physiological indices, Leonov's entry into space was not accompanied by a sharp increase in stress. In his description of the EVA Leonov says that his push-aways from the spaceship were accomplished back first at a 45° angle to the long axis of the lock. Approach maneuvers were done head first with arms outstretched to prevent striking the ship. Orientation in space was preserved using the capsule and the Sun as focal points. [JS]

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L 10586-66 PSS-2/EWT(1)/FS(v)-3/EEG(k)-2/EWA(d) TT/DD/RD/GW
ACC NR: AP6000311 SOURCE CODE: UR/0293/65/003/006/0940/0945

AUTHORS: Leonov, A. A.; Lebedev, V. I.

ORG: none

TITLE: On the orientation of man in cosmic space

SOURCE: Kosmicheskiye issledovaniya, v. 3, no. 6, 1965, 940-945

TOPIC TAGS: space medicine, space motion sickness, space orientation, extravehicular activity

ABSTRACT: An analysis of the psychological mechanisms of the orientation of a man in conditions of the gravitational force of the earth during flights in rocket aircraft is presented. The authors consider the effects of weightlessness in conditions of orbital flight and during extravehicular activity in cosmic space. It is shown that A. A. Leonov did not experience disorientation symptoms during his extravehicular experience. The stimuli which provide a man with a sense of orientation and cognizance of distance are reviewed and compared as they apply (or do not apply) in terrestrial versus cosmic circumstances. The history of A. A. Leonov's exit into space is reviewed, and it is surmised that man can, in general, function in circumstances wherein the normal orientation stimuli are lacking. Several scientists have studied the psychological reactions of men during short periods of weightlessness. Three general categories of reaction are noted: 1) no adverse effects with no loss in

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functional capability, 2) a sensation of falling, of free "swimming" in air, a sharp sense of tumbling without direction, etc, and 3) aggravated sensations of disorientation combined with the symptoms of seasickness. Some of the manifestations of the adverse effects are reviewed as case histories. The authors feel that training and experience are the best preventative for disorientation symptoms, and they recommend a careful selection of astronauts for extravehicular activity.

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